

tight construction and having a means to reduce the pressure inside said outer tube; said trough portion having a midline bisecting the length of said trough and said midline being oriented at an angle with respect to horizontal so as to urge the flow of liquid in one direction.

*Full Page*  
*B1*  
*cont*  
<sup>14</sup>  
12. The apparatus of claim 11 wherein said lower section is comprised of a material that is reflective of solar radiation and said lower section having a parabolic shape and so disposed to reflect solar radiation upward in the direction of said liquid in said lower section.

*Full Page*  
<sup>15</sup>  
13. The apparatus of claim 11 wherein said lower section is comprised of material having a dark color so as to enhance the absorption of the solar radiation.

*Full Page*  
<sup>16</sup>  
14. The apparatus of claim 11 wherein said upper section is composed of a material that is photochromic in nature so as to get darker in color in response to changes in the intensity of the solar radiation.

*Full Page*  
<sup>17</sup>  
15. The apparatus of claim 11 wherein said outer tube is divided into two halves along a line parallel to said central axis, each of said halves in connection with a means for hinging said halves so as to allow said halves to pivot with respect to one another.

*Full Page*  
<sup>18</sup>  
16. An improved distillation apparatus for use with solar radiation; said apparatus comprising: an enclosed outer tube adapted for the flow of liquids, said outer tube having an inner surface and an outer surface and having a central axis running the length of said tube, said outer tube being of rigid construction and having a central plain running parallel to said central axis so as to bisect said outer tube into an upper section and a lower section; said lower section adapted to hold liquid in said outer tube; said outer tube

being of substantially air tight construction and having a means to reduce the pressure inside said outer tube; said outer tube having pair of trough portions running parallel to said central axis and each in connection with said inner surface of said outer tube, said trough portions located on opposite sides of said outer tube and of curved surface so as to collect liquids that condense on said upper section, said upper section having at least two indented portions and each of said indented portions disposed so that at least one said indented portion is above at least one of said trough portions, each of said trough portions having a midline bisecting the length of said troughs and said midlines being oriented at an angle with respect to horizontal so as to urge the flow of liquid in said troughs in one direction.

*Ref 176 B1 end*  
<sup>19</sup>  
17. The apparatus of claim 16 wherein said lower section is comprised of a material that is reflective of solar radiation and said lower section having a parabolic shape and so disposed to reflect solar radiation upward in the direction of said liquid in said lower section.

*Ref 176*  
<sup>20</sup>  
18. The apparatus of claim 16 wherein said lower section is comprised of material having a dark color so as to enhance the absorption of the solar radiation.

*Ref 176*  
<sup>21</sup>  
19. The apparatus of claim 16 wherein said upper section is composed of a material that is photochromic in nature so as to get darker in color in response to changes in the intensity of the solar radiation.

*Ref 176*  
<sup>22</sup>  
20. The apparatus of claim 16 wherein said outer tube is divided into two halves along a line parallel to said central axis, each of said halves in connection with a means for hinging said halves so as to allow said halves to pivot with respect to one another.